



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,340	03/12/2004	Lee Weng	9301-228	9918
20583	7590	08/30/2007		
JONES DAY 222 EAST 41ST ST NEW YORK, NY 10017			EXAMINER RIGGS II, LARRY D	
			ART UNIT 1631	PAPER NUMBER
			MAIL DATE 08/30/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/800,340

**Applicant(s)**

WENG, LEE

**Examiner**

Larry D. Riggs II

**Art Unit**

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18, 20-59 and 66-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18, 20-59 and 66-70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

The instant application has been transferred to Examiner Larry D. Riggs II, Art Unit 1631.

#### *Claims*

Cancellation of claim 19 is acknowledged in the amendment filed May 29, 2007. Claims 1-18, 20-59 and 66-70 are pending.

#### *Drawings*

The drawings are objected to because replacement drawings submitted on September 01, 2004 did not contain "Replacement Sheet" or "New Sheet" in the top margin pursuant 37 CFR 1.121(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. **Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).** If the changes

Art Unit: 1631

are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claim 66 is objected to because of the following informalities:

There is no colon after "method comprising" in line 5. It is suggested that a colon be placed after "method comprising" in line 5.

### ***Claim Rejections - 35 USC § 112***

In view of the amendment and explanation by the Applicant filed 29 May 2007, the previous 35 U.S.C. § 112 rejection of claims 1-18, 20, 22-29, 31-38, 40-42, 44-59 and 66 is withdrawn.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-18, 19-59 and 66-70 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 30 recites an experimental profile  $XA_m$  in the preamble and after step (c) and a processed profile  $A_m$  in step (a). However, in step (d) the claim recites "said experimental profile  $A_m$ ." It is not clear whether  $XA_m$  or  $A_m$  is intended to be an experimental profile and what profile is used in step (d) for generating an error-adjusted experimental profile  $A_m'$ .

Claim 30 also recites  $XC_m$  being a reference profile and  $C_m$  being a processed reference profile in the preamble, and in step (a). Claim 30 further recites that  $C_m$  stands for a reference profile in step (b). Thus, it is not clear whether  $XC_m$  or  $C_m$  is intended to be a reference profile. Therefore, the relationship of an experiment profile  $XC_m$ , a processed profile  $A_m$ , a reference profile  $XC_m$ , and a reference processed profile  $C_m$  is not clear.

Claims 43 and 45 recite "experimental profile  $A_m$ " and "reference profile  $C_m$ ." Claims 43 and 45 depend from claim 30, which recites a processed experiment profile identified as  $A_m$  and a processed reference profile identified as  $C_m$ . Thus, it is not clear what "profiles" are intended in claims 43 and 45.

Applicant argues that by reciting the definition of  $XA_m$  and  $XC_m$  in the preamble while using  $A_m$  and  $C_m$  under a different definition than previously claimed, makes the usage of symbols clear, (page 41, paragraph 5 – page 42, paragraph 2). This is not convincing. Providing a symbol with a definition and using that symbol for the previous claims, including the instant claim 30, then switching the definition of these prior used symbols within a preamble, makes the instant claim unclear.

As the intended limitation is not clear, claims 30-59 are indefinite.

Claim 1 recites the limitation "a differential reference profile computed between  $C_m$  and (C average)" in lines 12 and 13. It is unclear what mathematical relationship is involved when computing between two variables.

Claim 1 in lines 14-17, recites the limitation "adjusting an experiment profile  $A_m$ ...based on said differential reference". It is unclear what are the limits of adjustment and how are the adjustments based.

Claim 12 recites the limitation "determining errors  $\{\sigma^m(k)\}$  of said data set  $\{A^m(k)\}$ " in line 2. Claim 1 provides a second error-corrected profile  $A^m$  has data set  $\{A^m(k)\}$  in line 33. Claim 6 provides a second error-corrected profile  $A^m$  calculated from data set  $\{A^m(k)\}$  in lines 2 and 3. It is unclear how to determine errors  $\{\sigma^m(k)\}$  from only data set  $\{A^m(k)\}$ .

Claim 21 in line 1 and claim 24 in lines 1 and 2, recites the limitation "said removing step". The term makes it unclear if Applicant is labeling the step (a0), which is already labeled and thus provides additional unnecessary labeling or is Applicant removing step (a0) or does the method involve performing the step (a0).

Claim 21 in lines 3, 4 and 8-10, claim 22 in line 4, claim 24 in lines 5, 6, 11, 17, 23, 30 and 31, recites the limitation "first experiment profiles". It is unclear what "first experiment profile" means, wherein Claim 1 provides "a first error-corrected experiment profile,  $A'_m$ , and  $A_m$  is referred to as an experiment profile in line 4. The specification does not define the limitation.

Art Unit: 1631

Claim 21 in lines 3, 4 and 8-10, claim 22 in line 6, claim 24 in lines 9, 13, 14, 20, 27 and 31, recites the limitation "first reference profiles". It is unclear what "first reference profile" means, wherein Claim 1 provides  $C_m$  referring to a reference profile in lines 4 and 5. The specification does not define the limitation.

Claim 21 in line 9 and claim 22 in line 2, recites the limitation "first difference". It is unclear whether this difference is referring to one of multiple differences involving the first experiment profile and the average profile or if first difference refers to the difference between the first experiment profile and the average profile or if other experiment profiles are involved with the average profile.

Claim 21 in line 12 and claim 22 in line 4, recites the limitation "second difference". It is unclear whether this difference is referring to one of multiple differences involving the first reference profile and the average profile or if second difference refers to the difference between the first experiment profile and the average profile or if other reference profiles are involved with the average profile.

Claim 29 in line 4; claim 35 in line 4, recites the limitation "value among the highest 10%". It is unclear what the metes and bounds of among the highest pertains.

Claim 30 in lines 6, 13, 19 and 35; claim 32 in lines 6 and 7, claim 36 in line 4, claim 42 in lines 26 and 27, claim 43 in lines 2 and 3, claim 45 in lines 4 and 5, claim 50 in line 8, claim 53 in line 10, recite the limitation "processed experiment profile  $A_m$ ". Claim 1 recites  $A_m$  as an experiment profile, in line 4. It is unclear which definition belongs to the symbol  $A_m$ .

Claim 30 in line 6-9 and 20, claim 36 in line 7, claim 42 in line 28, claim 43 in line 2, claim 50 line 9, claim 53 in line 11, recites the limitation "processed reference profile  $C_m$ ". Claim 1 recites  $C_m$  as a reference profile in lines 4 and 5. It is unclear which definition belongs to the symbol  $C_m$ .

Claim 30 recites the limitation "average processed reference profile (represented by a bar over an upper case C)" in line 8 and 21. Claim 1 recites an "average reference profile" (represented by the symbol of a bar over an upper case C) in line 9. It is unclear which definition belongs to the symbol of a bar over an upper case C.

Claim 30 recites the limitation "pairs of profiles  $\{XA_m, XC_m\}$ " in lines 2, 3 and 5. Claim 1 recites pairs of profiles  $\{A_m, C_m\}$  in lines 2 and 3. It is unclear which symbol represents the limitation "pairs of profiles".

Claim 30 in lines 10 and 11, claim 45 in line 2, recites the limitation "processed profile pair  $\{A_m, C_m\}$ ". Claim 1 recites pairs of profiles  $\{A_m, C_m\}$  in lines 2 and 3. It is unclear which definition belongs to the symbol  $\{A_m, C_m\}$ .

Claim 30 in lines 31, 32 and 34, claim 45 in line 4, claim 49 in line 2, recites the limitation "first error-corrected processed profile  $A'_m$ ". Claim 1 recites first error-corrected experiment profile  $A'_m$  in lines 22 and 32. It is unclear which definition belongs to the symbol  $A'_m$ .

Claim 30 in lines 32 and 33, claim 45 in line 3, claim 46 in lines 1 and 2, claim 52 in line 2, recites the limitation "second error-corrected processed profile  $A''_m$ ". Claim 1 recites second error-corrected experiment profile  $A''_m$  in lines 33 and 34. It is unclear which definition belongs to the symbol  $A''_m$ .



Art Unit: 1631

Claim 32 recites the limitation "when further processing does not occur" in lines 7-9. The specification and claims do not define the metes and bounds of this limitation nor would one skilled in the art know when to require this limitation.

Claim 36 recites the limitation "when further processing of said data set  $[TA_m(k)]$  does not occur" in lines 4,5,7 and 8. The specification and claims do not define the metes and bounds of this limitation nor would one skilled in the art know when to require this limitation.

Claim 39 recites the limitation "transformed experiment profiles" in lines 3 and 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 39 recites the limitation "transformed reference profiles" in line 4. There is insufficient antecedent basis for this limitation in the claim

Claim 39 in line 7, recites the limitation "first transformed experiment profiles". It is unclear what "first transformed experiment profile" means, wherein Claim 30 provides "a first error-corrected experiment profile,  $A'_m$ , in lines 31 and 32, and  $A_m$  is referred to as a processed experiment profile in line 6. Claim 36 recites transformed data set  $\{TA_m(k)\}$  is a first data set of processed experiment profile  $A_m$ , in lines 3 and 4. The specification does not define the limitation.

Claim 39 in line 8, claim 40, line 2, recites the limitation "first difference". It is unclear whether this difference is referring to one of multiple differences involving the first transformed experiment profile or if first difference refers to the difference between the first transformed experiment profile and the average transformed profile or if other transformed experiment profiles are involved with the average transformed profile.

Claim 39 in line 10, claim 40, line 5, recites the limitation "second difference". It is unclear whether this difference is referring to one of multiple differences involving the transformed reference profile and the average profile or if second difference refers to the difference between a first transformed reference profile and the average profile or if other transformed reference profiles are involved with the average profile.

Claim 42 in line 1, recites the limitation "said adjusting step". The term makes it unclear if Applicant is labeling the step (a2), which is already labeled and thus provides additional unnecessary labeling or is Applicant performing a method involving the adjustment of step (a2).

Claim 42 recites the limitation "when further processing of said data set  $[TA_{m(Corr)}(k)]$  does not occur" in line 27. The specification and claims do not define the metes and bounds of this limitation nor would one skilled in the art know when to require this limitation.

Claim 42 recites the limitation "when further processing of said data set  $[TC_{m(Corr)}(k)]$  does not occur" in line 29. The specification and claims do not define the metes and bounds of this limitation nor would one skilled in the art know when to require this limitation.

Claim 66 recites the limitation "experiment profile  $A_m$ " in lines 2, 6, 11, 12 and 24. Claim 30 in lines 3, 22 and 23, claim 31 in line 2, claim 33 in line 2, claim 34 in line 2, recites  $XA_m$  as an experiment profile. It is unclear which symbol should represent "an experiment profile".

Art Unit: 1631

Claim 66 recites the limitation "condition  $A_m$ " in line 15. Claim 30 in lines 6, 13, 19 and 35; claim 32 in lines 6 and 7, claim 36 in line 4, claim 42 in lines 26 and 27, claim 43 in lines 2 and 3, claim 45 in lines 4 and 5, claim 50 in line 8, claim 53 in line 10, recite the limitation "processed experiment profile  $A_m$ ". Claim 1 recites  $A_m$  as an experiment profile, in line 4. It is unclear which definition belongs to the symbol  $A_m$ .

Claim 66 recites the limitation "reference profile  $C_m$ " in lines 10 and 12. Claim 30 in line 3 and 23, claim 31 in line 2, claim 32 in line 8, claim 33 in line 2, claim 34 in line 2, claim 56 in line 1, recites the limitation "reference profile  $XC_m$ ". It is unclear which symbol should represent the limitation "a reference profile".

Claim 66 recites the limitation "average reference profile (represented by the symbol of a bar over an upper case C)" in line 7. Claim 30 recites the limitation "average processed reference profile (represented by a bar over an upper case C)" in line 8 and 21. It is unclear which definition belongs to the symbol of a bar over an upper case C.

Claim 66 recites the limitation "profile pair  $\{A_m, C_m\}$ " in line 8. Claim 30 in lines 10 and 11, claim 45 in line 2, recites the limitation "processed profile pair  $\{A_m, C_m\}$ ". It is unclear which definition belongs to the symbol  $\{A_m, C_m\}$ .

Claim 66 recites the limitation "first error-corrected profile  $A'_m$ " in lines 21, 23 and 24. Claim 30 in lines 31, 32 and 34, claim 45 in line 4, claim 49 in line 2, recites the limitation "first error-corrected processed profile  $A'_m$ ". Claim 1 recites the limitation "first error-corrected experiment profile  $A'_m$ ". It is unclear which definition belongs to the symbol  $A'_m$ .

Art Unit: 1631

Claim 66 recites the limitation "second error-corrected profile  $A'_m$ " in lines 22 and 23. Claim 30 in lines 32 and 33, claim 45 in line 3, claim 46 in lines 1 and 2, claim 52 in line 2, recites the limitation "second error-corrected processed profile  $A''_m$ ". Claim 1 recites second error-corrected experiment profile  $A''_m$  in lines 33 and 34. It is unclear which definition belongs to the symbol  $A''_m$ .

Claim 70 recites the limitation "experiment profile  $XA_m$ " in line 3 and the limitation "experiment profile  $XC_m$ " in line 5. It is unclear which symbol belongs to the limitation "experiment profile".

### ***Claim Rejections - 35 USC § 101***

The rejection of claims 1-57 and 66 under 35 U.S.C. 101 in the Office action mailed 29 November 2006 is withdrawn in view of the amendment filed 29 May 2007.

### ***Claim Rejections - 35 USC § 102***

The rejection of claims 1-18, 25, 30, 31, 58, 59 and 66 under 35 U.S.C. 102 in the Office action mailed 29 November 2006 is withdrawn in view of the amendment filed 29 May 2007.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Larry D. Riggs II whose telephone number is 571-270-3062. The examiner can normally be reached on Monday-Thursday, 7:30AM-5:00PM, ALT. Friday, EST.

Art Unit: 1631

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie Moran can be reached on 571-272-0720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LDR/  
Larry D. Riggs II  
Examiner, Art Unit 1631

/John S Brusca/  
Primary Examiner  
Art Unit 1631